

299-W10-78 (A7168) Log Data Report

Borehole Information:

Borehole: 299-W10-78 (A7168)		Site: 216-T-7 Tile Field			
Coordinates (WA St Plane)		GWL¹ (ft): None	GWL Date: 05/31/06		
North 136650.019	East 566655.749	Drill Date 12/48	Elevation (ft) (TOC) 662.7	Total Depth (ft) 20	Type Cable

Casing Information:

Casing Type	Stickup (ft)	Outer Diameter (in.)	Inside Diameter (in.)	Thickness (in.)	Top (ft)	Bottom (ft)
Welded steel	0.0	8 5/8	8	5/16	0.0	20

Borehole Notes:

Casing diameter and stickup measurements were acquired using a caliper and steel tape. Logging data acquisition is referenced to the top of casing (TOC).

Spectral Gamma Logging System (SGLS) Equipment Information:

Logging System: Gamma 1N	Type: SGLS (60%) SN: 45TP22010A
Effective Calibration Date: 04/05/06	Calibration Reference: DOE/EM-GJ1183-2006
Logging Procedure: MAC-HGLP 1.6.5, Rev. 1	

Spectral Gamma Logging System (SGLS) Log Run Information:

Log Run	1	2 Repeat			
Date	06/01/06	06/01/06			
Logging Engineer	McClellan	McClellan			
Start Depth (ft)	19.0	15.0			
Finish Depth (ft)	0.0	10.0			
Count Time (sec)	100	100			
Live/Real	R	R			
Shield (Y/N)	N	N			
MSA Interval (ft)	1.0	1.0			
ft/min	N/A ²	N/A			
Pre-Verification	AN030CAB	AN030CAB			
Start File	AN030000	AN030020			
Finish File	AN030019	AN030025			
Post-Verification	AN032CAA	AN032CAA			
Depth Return Error (in.)	N/A	N/A			
Comments	No fine-gain adjustment	Repeat section.			

Logging Operation Notes:

Logging was conducted with a centralizer on the sonde. A repeat section was collected to evaluate the logging system's performance. Pre- and post-survey verification measurements were acquired using the

Amersham verifier, SN 118. Maximum borehole depth achieved was 19.55 ft before the sonde un-weighted.

Analysis Notes:

Analyst:	Pope	Date:	11/21/06	Reference:	GJO-HGLP 1.6.3, Rev. 0
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Pre-run and post-run verifications for the logging systems were performed before and after the day's data acquisition. Acceptance criteria were met.

SGLS spectra were processed in batch mode using APTEC SUPERVISOR to identify individual energy peaks and determine count rates. Concentrations were calculated using the EXCEL worksheet template identified as G1NApr06.xls. A casing correction for 0.3125-in. thick casing was applied to the SGLS data.

Results and Interpretations:

¹³⁷Cs was identified at 0, 5, and 23 ft. The peak at 0 ft is verified by visual inspection of the spectrum. The concentration is 0.17 pCi/g. The peaks at 5 and 23 ft are not verifiable visually, and are determined to be statistical fluctuations in the spectra. No other manmade radionuclides are identified in this borehole.

The repeat sections for the SGLS indicate good agreement for the naturally occurring radionuclides.

List of Plots:

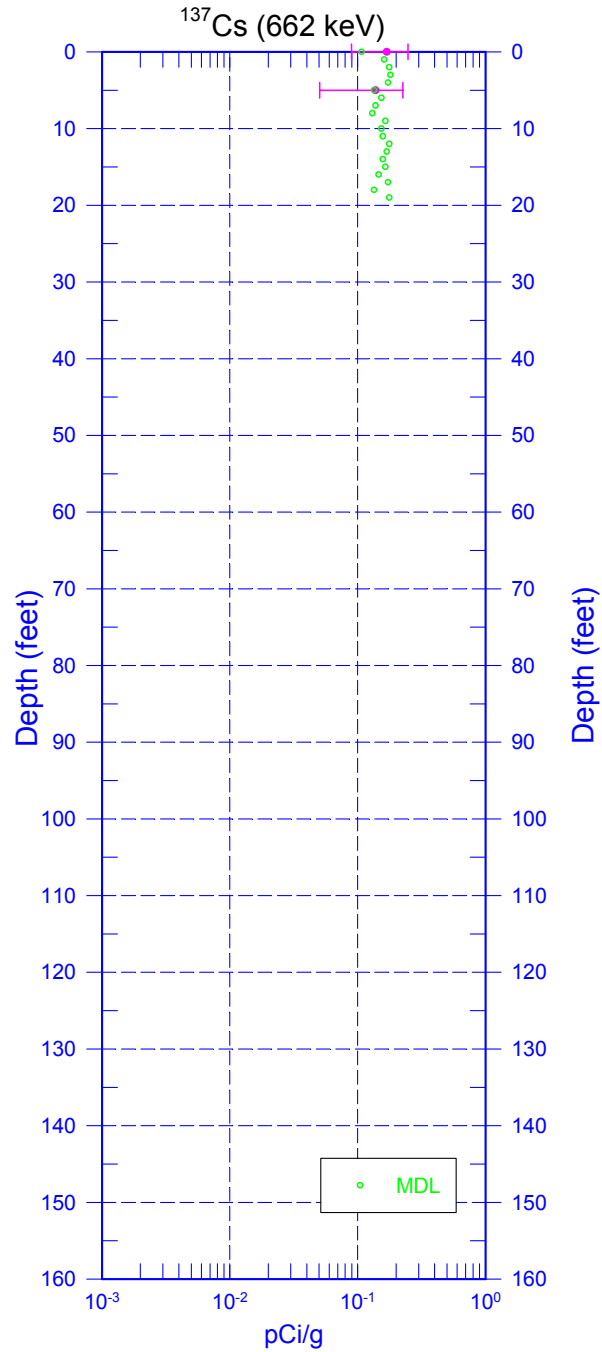
Man-Made Radionuclides
Natural Gamma Logs
Combination Plot (Total Depth)
Combination Plot (20 ft per in.)
Total Gamma and Dead Time
Repeat Section of Natural Gamma Logs

¹ GWL – groundwater level

² N/A – not applicable

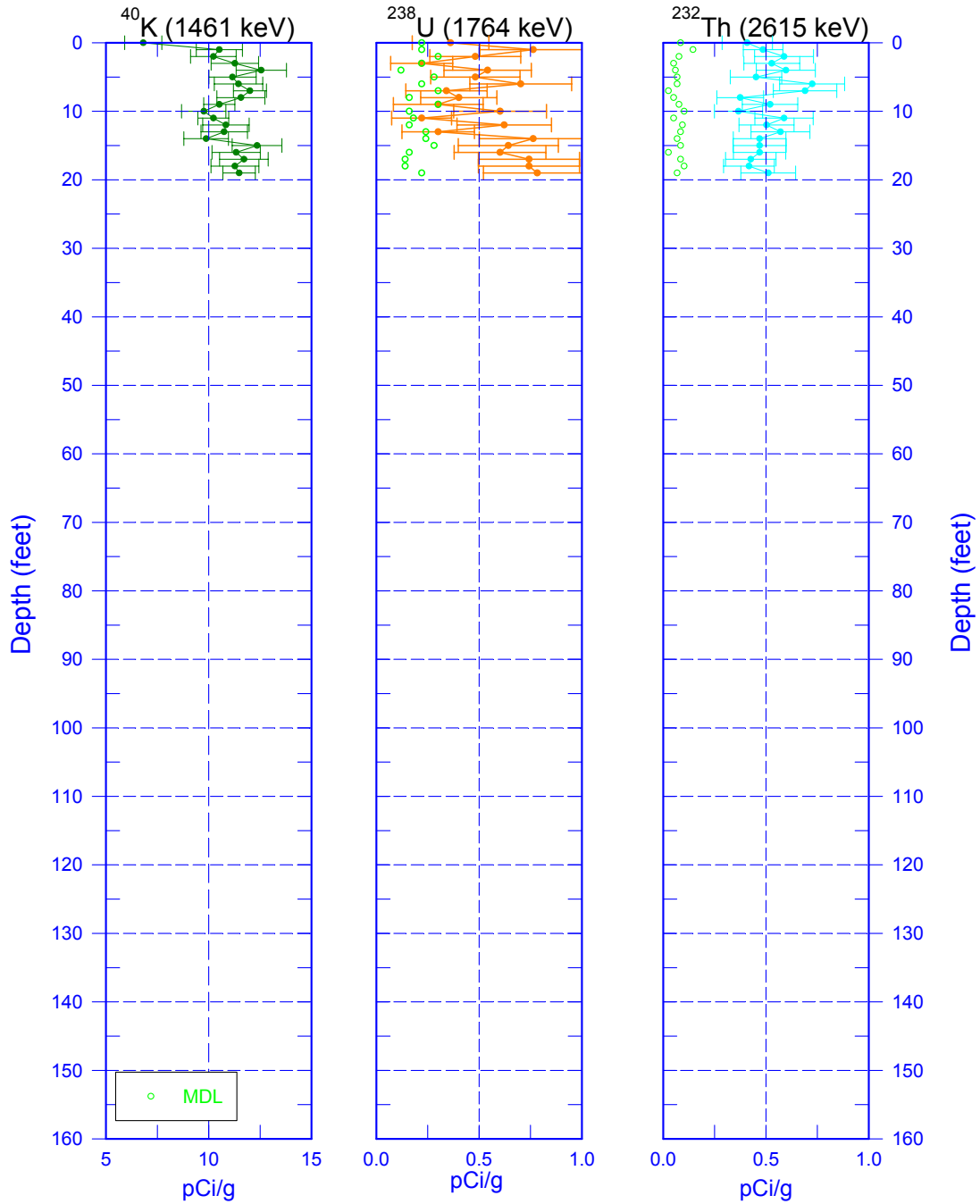
299-W10-78 (A7168)

Man-Made Radionuclides



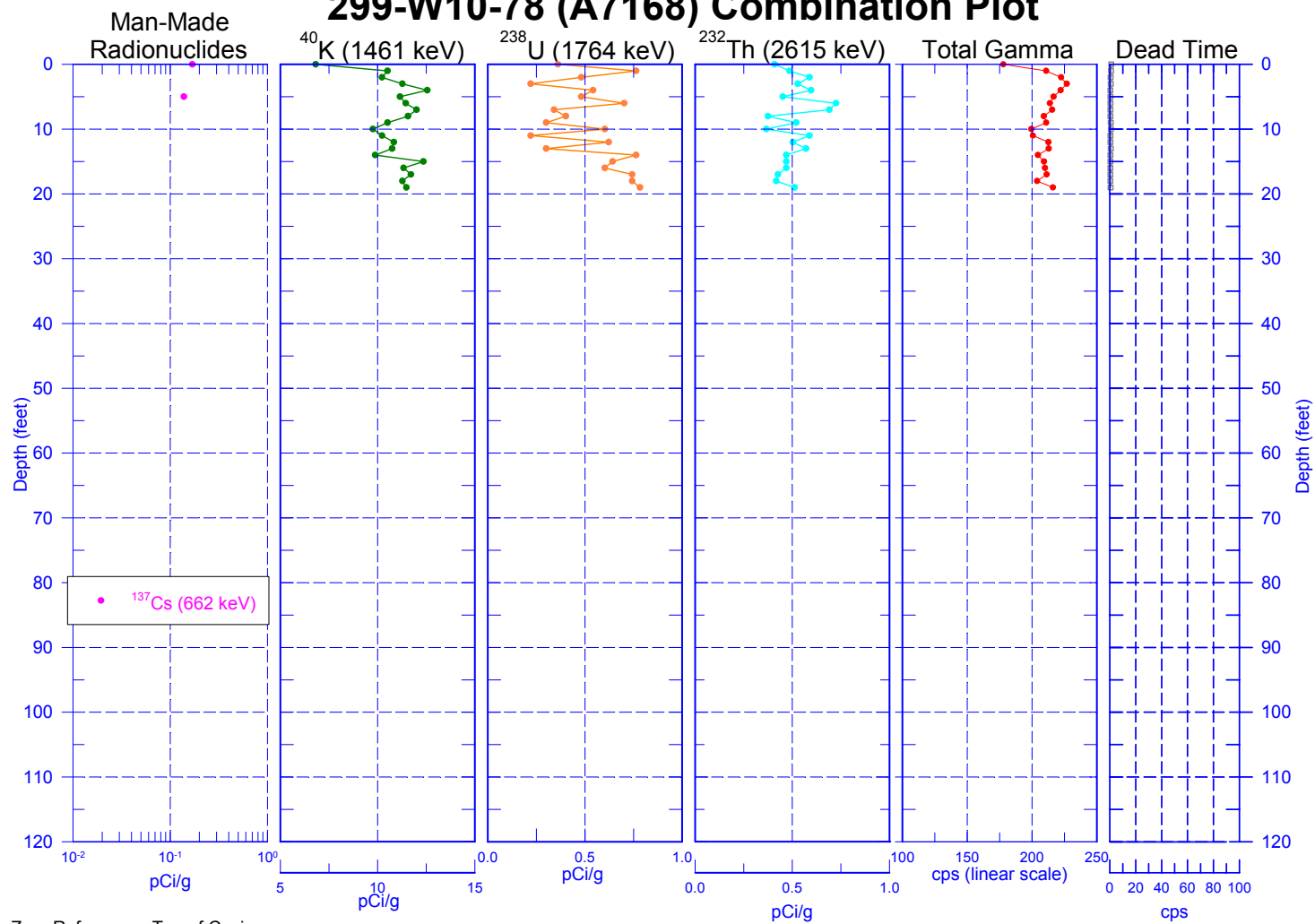
Zero Reference - Top of Casing

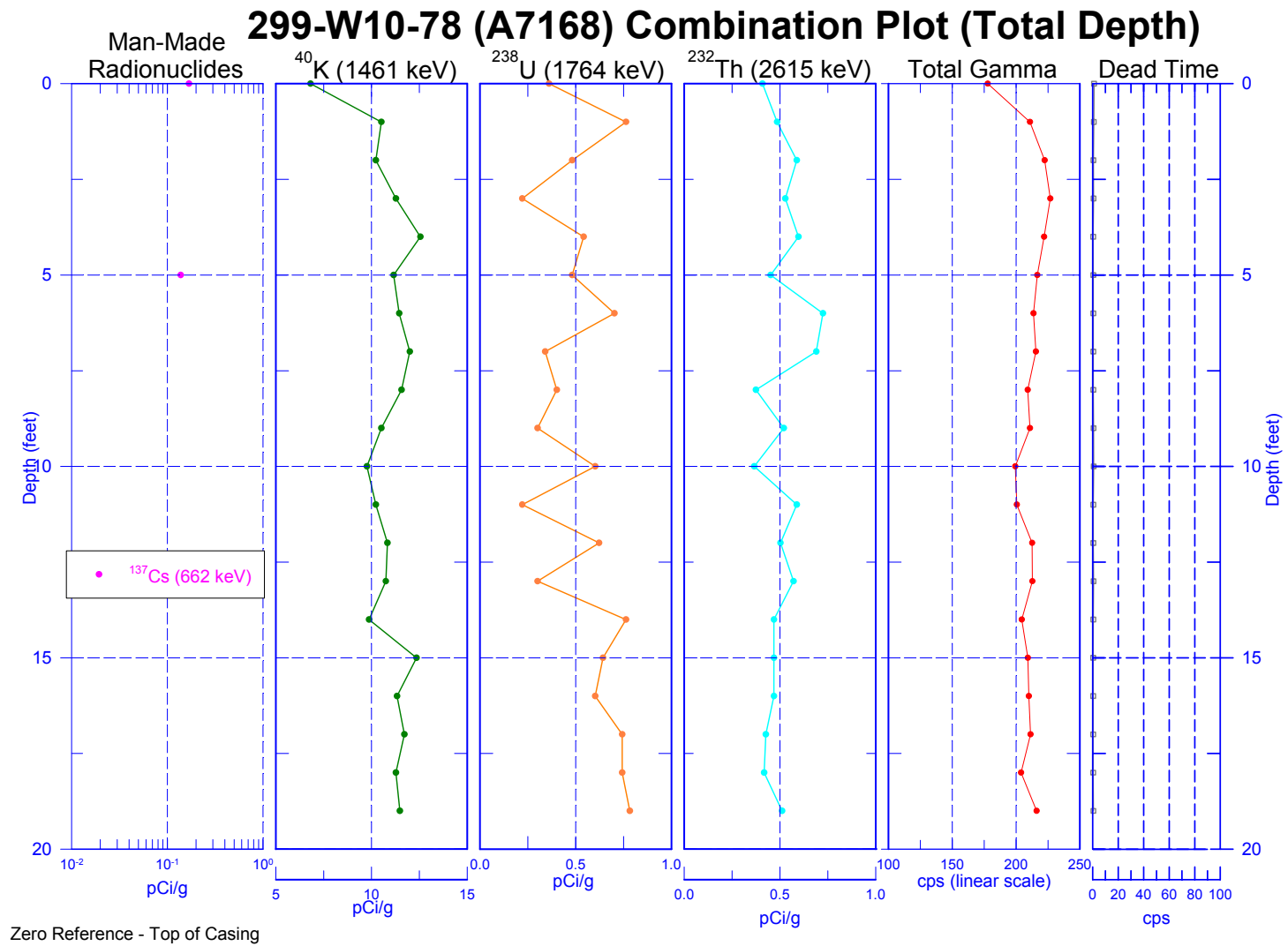
299-W10-78 (A7168) Natural Gamma Logs



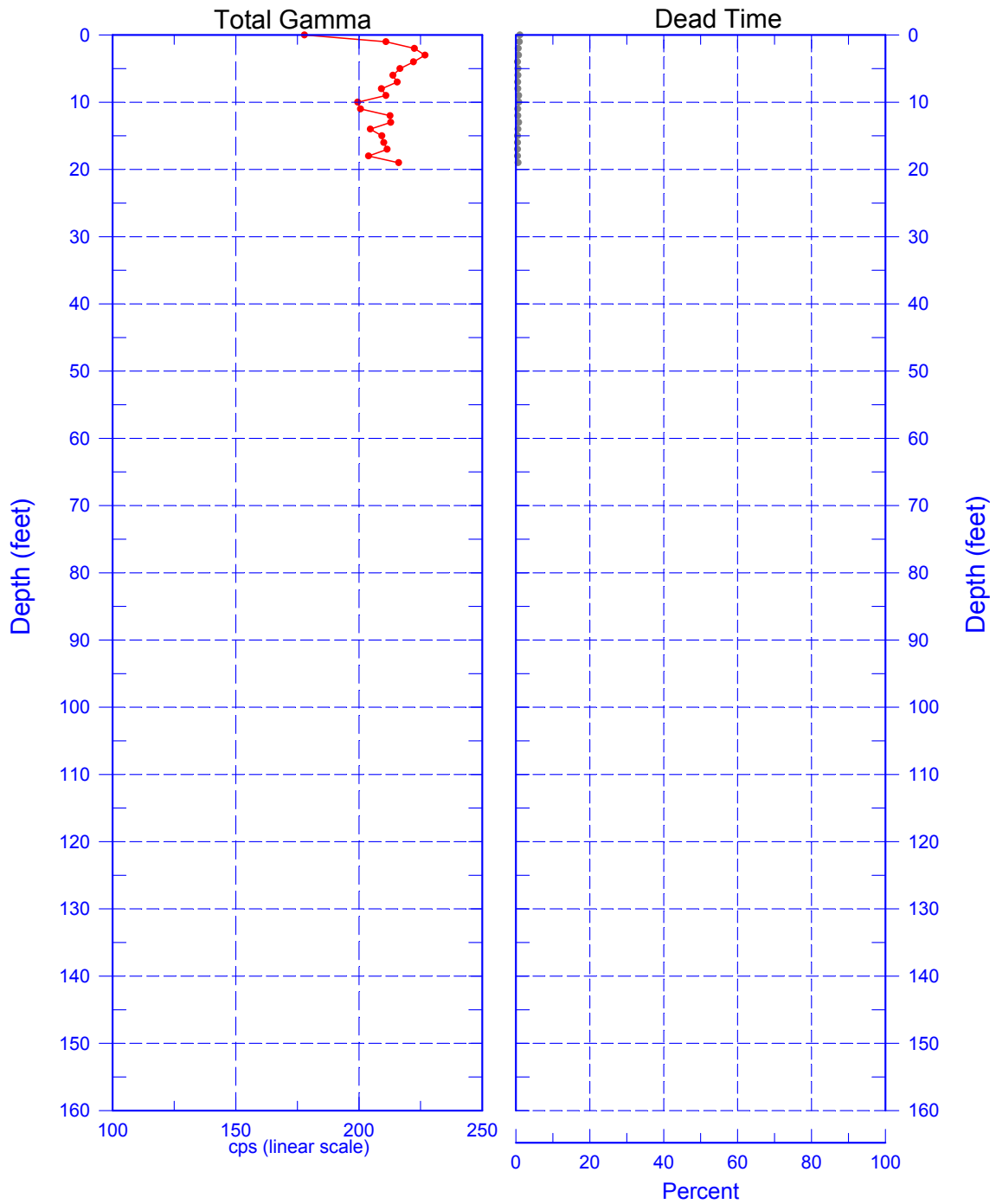
Zero Reference = Top of Casing

299-W10-78 (A7168) Combination Plot





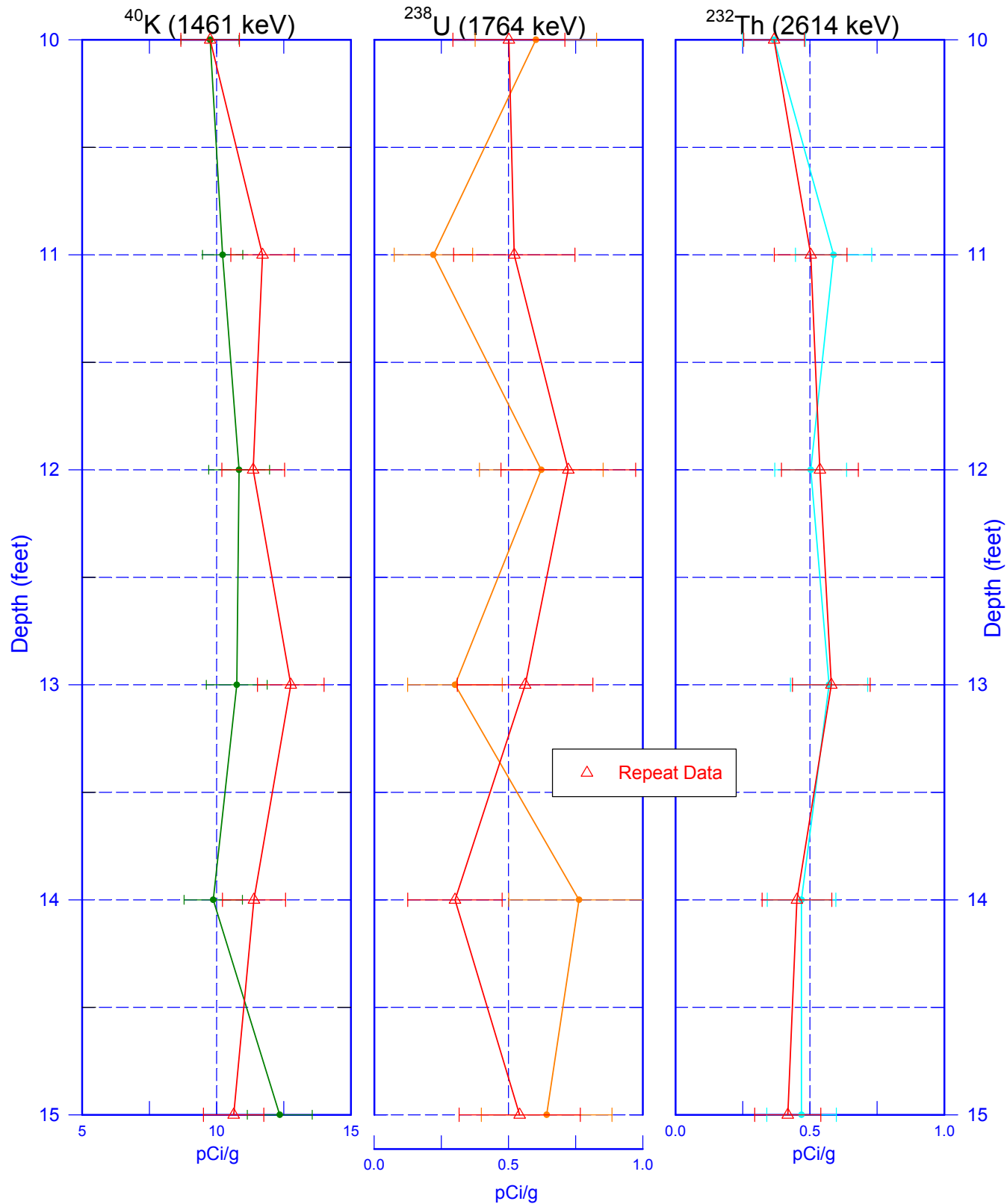
299-W10-78 (A7168) Total Gamma & Dead Time



Reference - Top of Casing

299-W10-78 (A7168)

Repeat Section of Natural Gamma Logs



Zero Reference - Top of Casing